

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Lisa Beckham

GENERAL INFORMATION:

Name:	Western Kentucky University
Address:	1906 College Heights Boulevard Bowling Green, KY 42101
Date application received:	5/15/2008
SIC Code/SIC description:	8221, Colleges, Universities, and Professional Schools
Source ID:	21-227-00012
Agency Interest:	11402
Activity:	APE20070001
Permit:	V-08-004

APPLICATION TYPE/PERMIT ACTIVITY:

<input checked="" type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input checked="" type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

#### EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM/PM <sub>10</sub>	4.76/1.17	59.7/59.7
SO <sub>2</sub>	64.7	190.8
NO <sub>x</sub>	28.5	100.8
CO	14.3	58.3
VOC	0.43	2.97
HCl	--	6.0
Source wide HAPs	--	6.75

#### SOURCE DESCRIPTION:

The Division received a renewal application from Western Kentucky University (WKU) on December 5, 2007 and additional information on February 6, 2008. WKU is a public university that operates several indirect heat exchangers to meet the heat demands of its campus. The facility includes 2 coal-fired units (46.6 and 50.5 MMBtu/hr), three larger natural gas-fired units (72.8 MMBtu/hr, 72.8 MMBtu/hr and 20 MMBtu/hr), and numerous small natural-gas fired units (less than 10 MMBtu/hr). There are also numerous emergency generators throughout the campus and a paint spray booth for miscellaneous maintenance surface coating needs. The paint spray booth was previously listed as an emission unit (EU 09) but after a tour of the facility it was determined that the unit qualifies as an insignificant activity, because it is equipped with a properly designed and operated particulate control device and uses less than five gallons per day, verifiable by appropriate records, of air-dried coating material.

This is the facility's initial Title V/Synthetic Minor permit. WKU has requested to change from a Conditional Major source to a Title V/Synthetic Minor source, by increasing the facility's permitted coal usage to 10,000 tons per year, raising the allowable sulfur content of coal to 1% and increasing the source-wide limit on SO<sub>2</sub> to 225 tons per year. This change will give WKU the ability to meet increased heat demand as its campus expands. Additional changes to the facility include the removal of older small indirect heat exchangers and replacement with newer, more efficient units. The source-wide limit on natural gas use remains unchanged at 750,000,000 scf.

New applicable requirements to the facility:

Pursuant to 40 CFR 60.4209(a), the owner or operator of an emergency stationary CI internal combustion engine, must install a non-resettable hour meter prior to startup of the engine.

Pursuant to 40 CFR 60.4207(a), the owner or operator of stationary CI internal combustion engine that uses diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

Pursuant to 40 CFR 60.4207(b), beginning October 1, 2010, the owner or operator of a stationary CI internal combustion engine that uses diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b).

Pursuant to 40 CFR 60.4205(b), owner and operators of 2007 model year and later emergency stationary CI internal combustion engines must comply with the emission standards for new nonroad CI engines in 60.4202, for all pollutants, for the same model year and maximum engine power.

#### EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, total source-wide emissions of sulfur dioxide shall not exceed 225 tons per year based on a consecutive twelve month rolling total. To demonstrate compliance with this emission limitation, the consecutive twelve-month rolling total shall be calculated monthly and reported quarterly.

To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, total source-wide usage of coal shall not exceed 10,000 tons per year based on a consecutive twelve month rolling total. To demonstrate compliance with this emission limitation, the consecutive twelve-month rolling total shall be calculated monthly and reported quarterly.

Total source-wide usage of natural gas shall not exceed 750,000,000 scf per year based on a consecutive twelve-month rolling total. The permittee shall monitor and maintain records of source-wide natural gas usage on a monthly basis. To demonstrate compliance with this emission limitation, the consecutive twelve-month rolling total shall be calculated monthly and reported quarterly.

#### OPERATIONAL FLEXIBILITY:

None